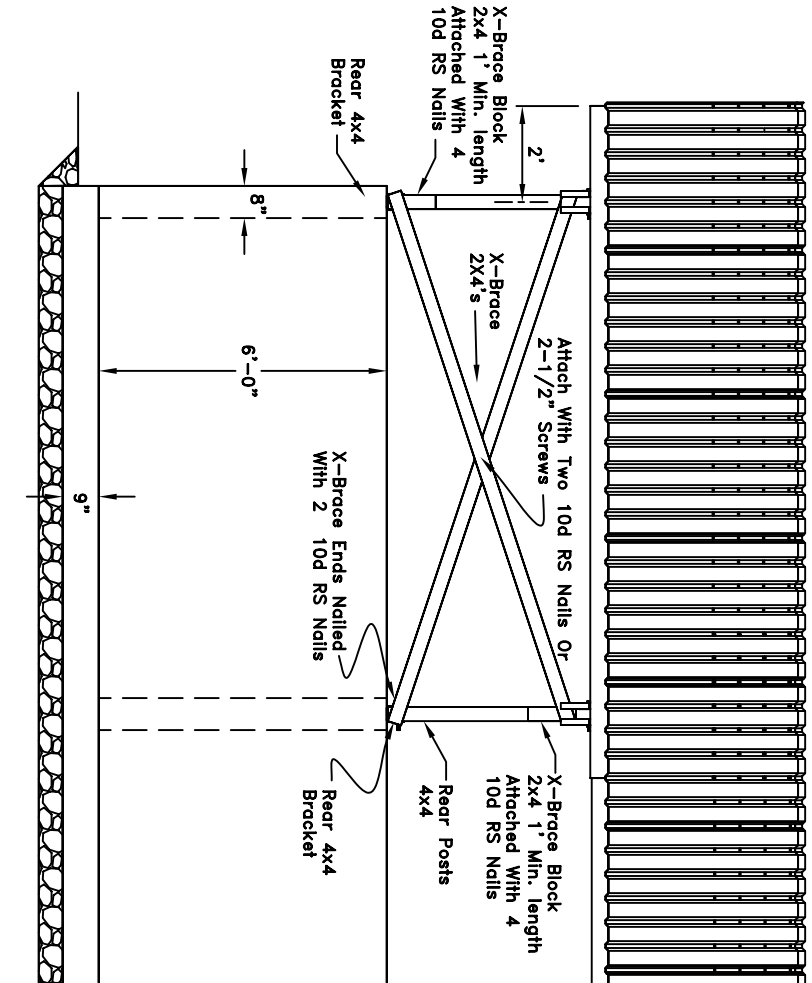
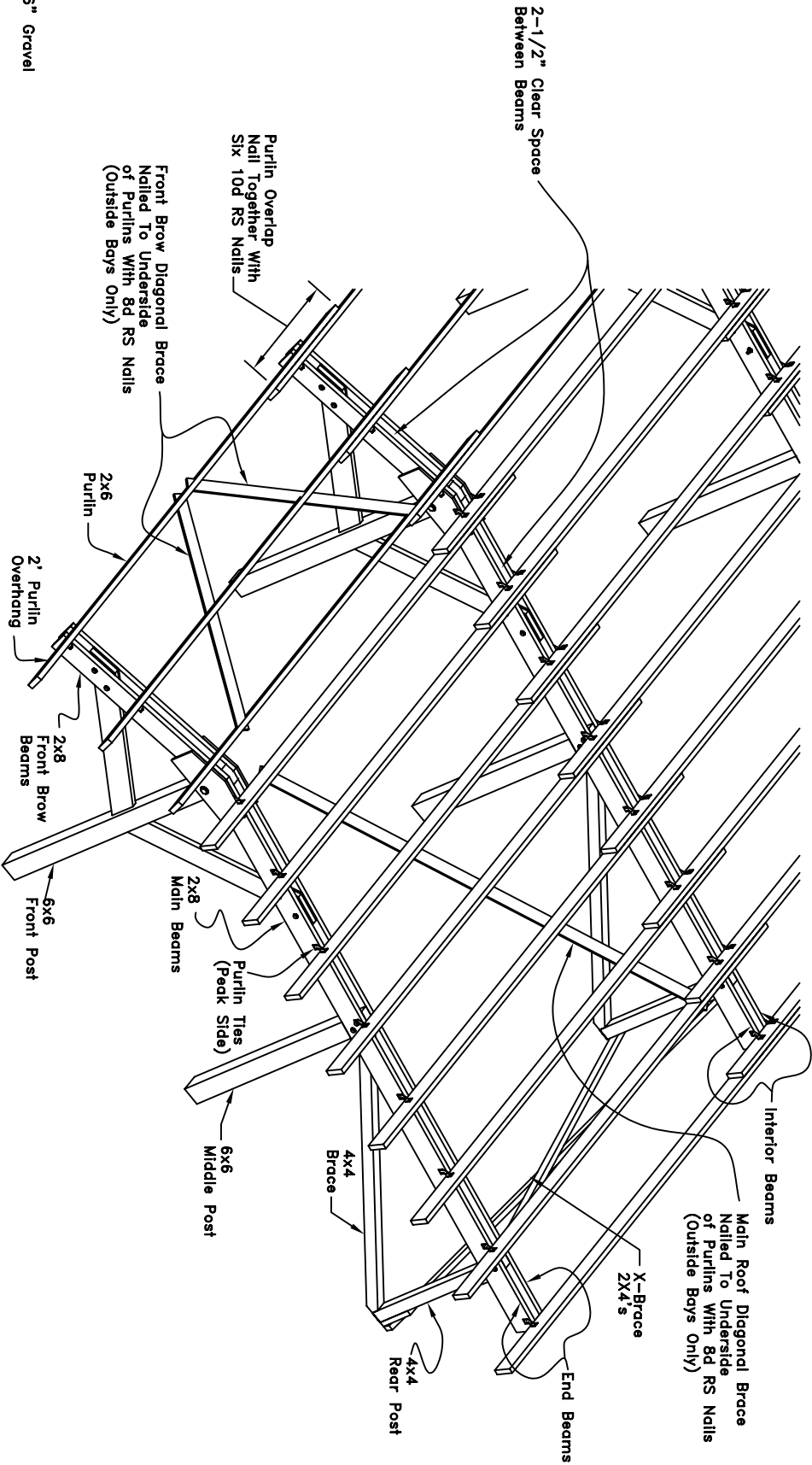


DRAWINGS ARE FOR A 3 TO 6 BIN COMPOSTER

ISOMETRIC VIEW



PARTIAL REAR ELEVATION



ISOMETRIC TIMBER DETAIL VIEW

		Date
Designed	Swanberg	2/05
Drawn	Axell	2/05
Checked	Pearson	2/05
Approved	Brach	3/05

ANIMAL MORTALITY COMPOSTING FACILITY  
10'W x 14'L x 6'H BINS  
GENERAL LAYOUT



File Name	MN616.DWG
Drawing Number	MN-ENG-616
Date:	3/25/2005
Sheet	1 of 5



**NOTE:**  
Post Bases Shall be Installed So That The Bottom of The Base is Flush With The Top of The Concrete Wall.

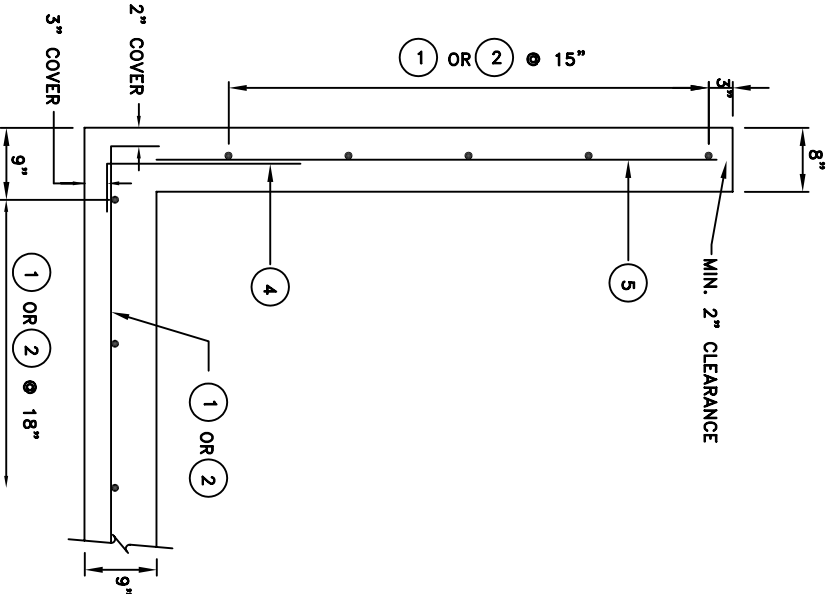
		Date
Designed	<b>Swanberg</b>	<b>2/05</b>
Drawn	<b>Axell</b>	<b>3/05</b>
Checked	<b>Pearson</b>	<b>2/05</b>
Approved	<b>Brach</b>	<b>3/05</b>



## ANIMAL MORTALITY COMPOSTING FACILITY

### 10'W x 14'L x 6'H BINS

### GENERAL LAYOUT



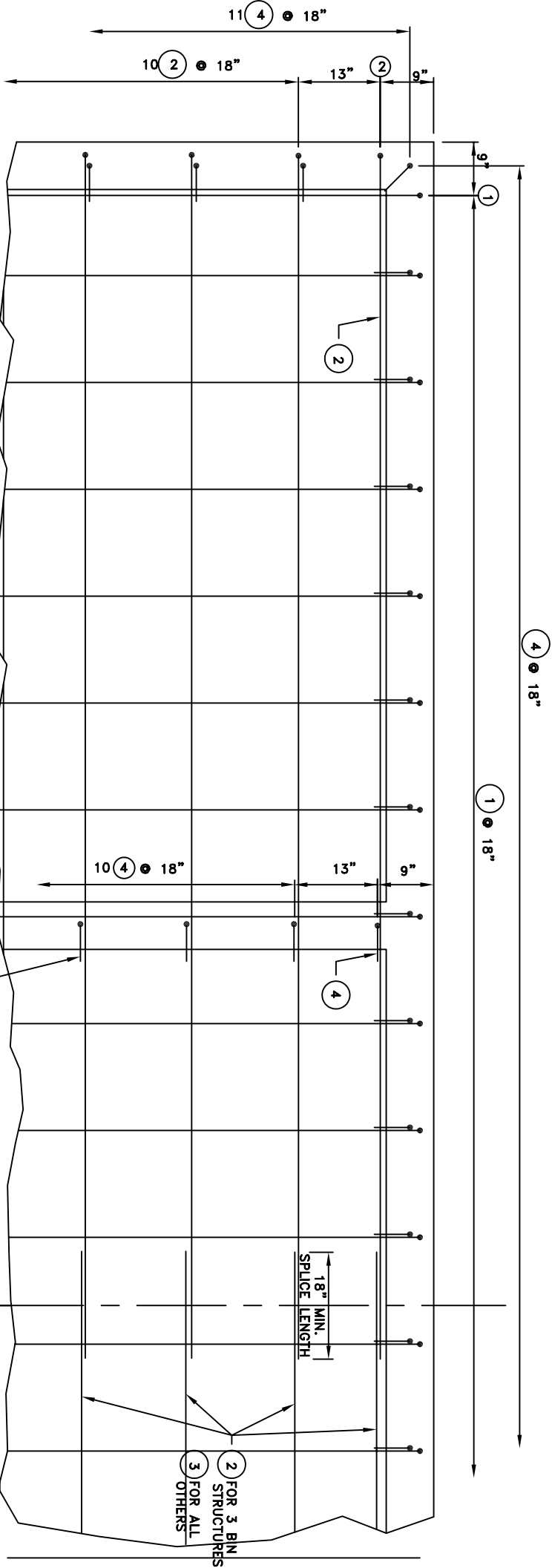
## BACK AND END WALL SECTION

### STEEL SCHEDULE

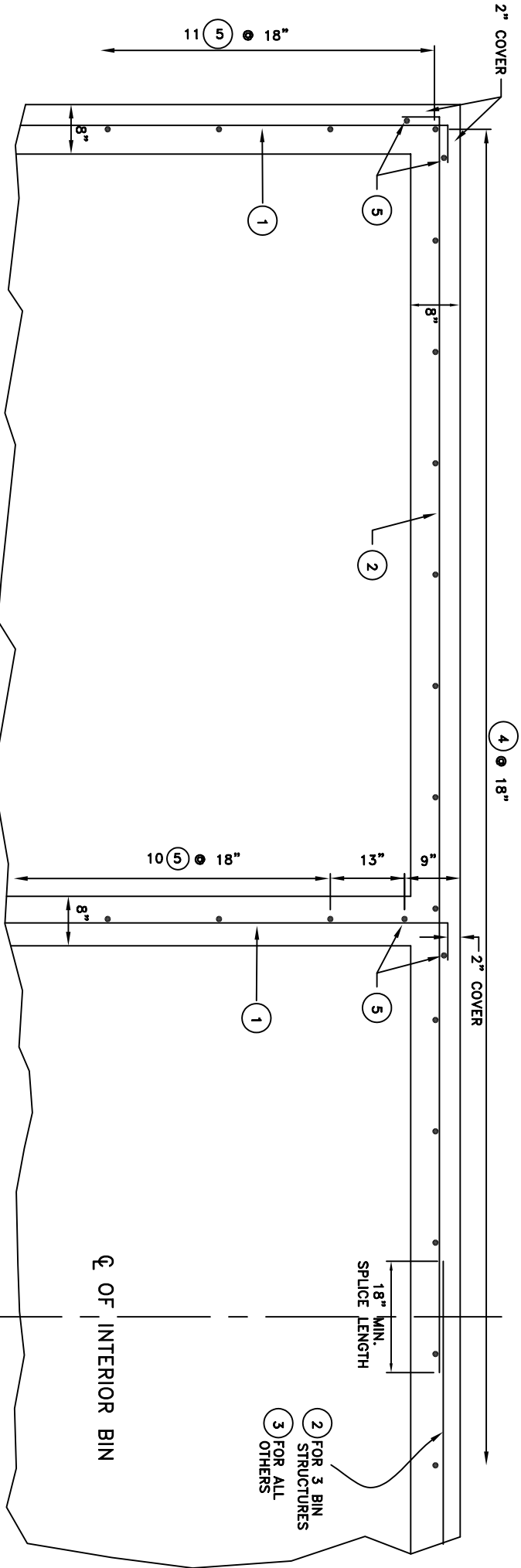
MARK	SIZE	QUANTITY						TYPE LENGTH	B	C	
		# of BINS									
		3	4	5	6						
STRUCTURE FLOOR AND WALLS											
1	5	42	55	67	79	21	15-0	14-4	0-6		
2	5	32	32	32	32	21	16-7	16-11	0-6		
3	5	-	16	32	48	1	12-2	-	-		
4	5	65	83	101	119	21	2-6	2-0	0-6		
5	5	71	90	109	128	1	5-10	-	-		
FRONT APRON											
6	4	20	20	20	20	1	16-10	-	-		
7	4	-	10	20	30	1	11-4	-	-		
8	4	23	30	37	44	1	12-8	-	-		

SIZE	TOTAL LENGTH			
	3	4	5	6
5	1,737-4	2,282-10	3,086-4	3,343-10
4	628-0	830-0	1,032-0	1,234-0

Front Apron Mark 6 bars assume a 16" lap splice in the middle of the slab.



## PARTIAL FLOOR STEEL PLAN VIEW



## PARTIAL WALL STEEL PLAN VIEW

### STEEL TYPES

TYPE 1      TYPE 21

### NOTES:

- All exposed concrete edges and corners shall be rounded or chamfered 1".
- Bar spacing is measured from center to center.
- Unless otherwise marked, all wall steel shall be centered in the wall.



## ANIMAL MORTALITY COMPOSTING FACILITY 10'W x 14'L x 6'H BINS CONCRETE STEEL REINFORCEMENT DETAILS

Designed	Pearson	Date	2/05
Drawn	Swanberg	Date	2/05
Checked	Pearson	Date	2/05
Approved	Brach	Date	3/05



GENERAL

This plan set shows details for three (3) composting bins. Additional bins may be added by duplicating the center concrete bins and roofing details.

This composting facility roof was designed based on a 90mph wind load and a 42 psf. snow load. An importance factor of 0.8 was applied to the snow load resulting in a design load of 33.6 psf.

Concrete Wall Loading  
Inside Load: 0 to 6 ft., 60 psf/ft  
Outside Load: 0 to 5 ft., 85 psf/ft (low to med plasticity silts & clays)

CONSTRUCTION NOTES

All operations shall be carried out in a safe and skilful manner. Safety and health regulations shall be observed and appropriate safety measures used.

Construction operations shall be carried out in such manner and sequence that erosion, air and water pollution will be minimized and held within tolerable limits.

The foundation area shall be cleared of trees, logs, stumps, roots, brush, boulders, sod, debris, structures, fences and frozen soil. Topsoil shall be stockpiled if needed for vegetation establishment. After stripping the foundation shall be excavated as needed to allow the placement of the 6" gravel layer. The resulting subgrade shall structurally uniform with no zones of soils that may cause differential settlement. The installed gravel shall be compacted by at least two passes of a vibrating plate compactor. The resulting gravel surface shall be level and uniform.

Bottom course steel reinforcing bars shall be held in their final intended position by the use of chairs manufactured for that purpose or concrete blocks with the same properties as the concrete to be placed.

A concrete slab as shown on the drawings shall be installed in front of the compostier unless otherwise shown. In the absence of a concrete slab, the area in front of the compostier shall be compacted earth with a 6" gravel surface.

Post bases shall be cast into the concrete walls. The tops of the walls need to be level and the post bases, spaced as shown on the drawings for the lumber dimensions to fit as shown.

Purlin joints will be staggered over rafters and overlapped. Overlapping purlins shall be nailed together with six (6) 10d RS nails. Purlins will be attached to rafters, on edge, with manufactured purlin ties. Two purlin ties shall be used at overlapped purlin locations, one tie on the end, single purlin locations. All purlin ties shall be installed on the up slope (peak side) of the purlins.

Bolts shall be centered on single bolt connections. On multiple bolt connections the bolts shall follow the details as shown on the drawings. All bolts are 5/8" in diameter and shall utilize washers on both ends and a nut. Bolts hole diameter shall be 1/32" to 1/16" larger than bolt diameter. Minimum clearance from center of bolt hole to edge of member is 1.5".

Metal roofing shall be installed following the manufacturers recommendations.

VEGETATION

All disturbed areas shall be groded to drain away from structure and reseeded. Topsoil shall be added, if needed, to establish vegetation.

MATERIALS

MATERIALS LIST			QUANTITIES					
			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	use column w/checked box	
			3. BINS	4. BINS	5. BINS	6. BINS		
TIMBER	SIZE	LENGTH						
FRONT POSTS	6 x 6	8'-0"	4	5	6	7		
MIDDLE POSTS	6 x 6	6'-5 1/8"	4	5	6	7		
REAR POSTS	4 x 4	4'-8 1/8"	4	5	6	7		
MAIN BEAMS	2 x 8	16'-0"	8	10	12	14		
FRONT BROW BEAMS	2 x 8	6'-0"	8	10	12	14		
4x4 BRACES	4 x 4	8'-10 1/2"	4	5	6	7		
X BRACES	2 x 4	11'-7"	4	4	4	4		
X BRACE BLOCKS	2 x 4	1'-0"	4	4	4	4		
KNEE BRACES	2 x 8	5'-0"	8	10	12	14		
PURLINS	2 x 6	14'-0"	33	44	55	66		
DIAGONAL BRACING								
MAIN ROOF	1 x 4	16'-0"	2	2	2	2		
BROW ROOF	1 x 4	6'-0"	4	4	4	4		
PLYWOOD								
FRONT POST GUSSETS	3/4"	exterior grade	8	10	12	14		
KNEE BRACE SHIMS	1/2"	exterior grade	16	20	24	28		